OBSERVATIONS ON A COLONY OF ACANTHOMYOPS of Compared (DENDROLASIUS) FULIGINOSUS, LATR., FOR 23 YEARS. Zoology By Horace Donisthorpe, F.Z.S., F.R.E.S., Etc. AUG 5 1938

I was fortunate enough to witness the establishment of a colony of A. (D.) fuliginosus, Latr., and I decided to take advantage of this opportunity to obtain direct evidence as to how soon a new nest becomes infested by myrmecophiles.

On 27th August 1915, being at a common near Woking, during the heat of the day, I witnessed a fierce battle between two colonies of ants. on a bank and around a partly hollow birch tree, with a small hole at the base. On climbing the bank to investigate more carefully this interesting scene, I found that the tree belonged to the Yellow Ant, Acanthomyops (Chthonolasius) umbratus, Nyl., which was being overwhelmed by the shining black A. (D.) fuliginosus, Latr. The ground was strewn with dead ants, mostly umbratus ǎ ǎ `` `, `` mostly dead, fastened by their mandibles to the legs and antennae of the black ants.

At the next visit all the umbratus had disappeared and the fuliginosus were in complete possession of the tree, much frass being observed all around it. I have published some few accounts of these ants from time to time, and the number of myrmecophiles to date is given in "The Guests of British Ants," p. 9 (1927), as 39. It should have been 42 at that time—the mistake having arisen by counting the numbers in my journal incorrectly; or perhaps some of the species had been identified after the publication of the "Guests." The entrance to the nest has always been packed with grass, which has sometimes attracted the attention of non-myrmecophiles, such being Aleochara succicola, Th.; Atheta nigricornis, Th., several times; Xantholinus linearis, Ol.; Clambus punctulatus, Beck; Hister merdarius, Hoff., twice; Euplectus karsteni, Reich; Coninomus constrictus, Gyll.; Corticaria denticulata, Gyll.; and C. eppelsheimi, Reitt., once in some numbers.

We usually gave the ants some sugar before repacking the entrance with grass; this, I believe, helps to prevent them from wishing to desert their nest.

The following is a list of the species taken in the order in which they were found, but only the dates of visits are mentioned when an additional species was found:—

#### 27TH AUGUST 1915.

Battle between A. (D.) fuliginosus, Latr., and A. (C.) umbratus, Nyl.

1. Myrmedonia lugens, Gr.

2. M. cognata, Märk.

3. Phyllomyza lasiae, Collin.

These three species, which were running about among the ants, must have come with the *fuliginosus*, being their guests.

# 10тн Мау 1916.

A large quantity of frass, thrown out by the ants, was found all around outside the tree. No doubt the result of enlarging the cavity inside the tree, to accommodate the *fuliginosus* carton nest.

### ENTOMOLOGIST'S RECORD.

15.VII.1938.

- 4. Myrmedonia laticollis, Märk.
- 5. Tropidopria fuliginosa, Wasm., and No. 3 also present.

### 17TH AUGUST 1917.

Colony in a flourishing condition,  $\mathcal{S}$  ants present; much frass outside the tree.

6. Amphotis marginata, F., under bark of, and on tree.

- 7. Scatopse transversalis, Lw., running on tree, and near entrance.
- 8. Blanjulus guttulatus, Gerv., and No. 2 also present.

# 25тн Мау 1918.

9. Oxypoda vittata, Märk., in some numbers.

10. Notothecta confusa, Märk., and Nos. 3, 6, 7, and 8 also present.

# 19тн Максн 1920.

The carton of the nest, of a light brown colour, built up near to the entrance of the hole in the tree.

- 11. Microglossa gentilis, Märk.
- 12. Myrmedonia funesta, Gr.

13. Quedius brevis, Er.

14. Aphiochaeta ciliata, Zett.

15. A. aequalis, Wood.

16. Harpactes hombergi, Scp., and No. 2 also present.

# 4TH APRIL 1920.

17. Myrmedonia limbata, Pk., and also Nos. 2, 12 and 13 present.

## 30тн Мау 1920.

- 18. Ptenidium myrmecophilum, Mots.
- 19. Loxotropa fuliginosi, Box.
- 20. Limosina curtiventris, Stnh.
- 21. Cyphodeirus albinus, Nic.
- 22. Laelaps (Cosmolaelaps) cuneifer, Mich., and Nos. 4, 9, 11, 12, and 13 also present.

## 20th June 1920.

23. Ptenidium laevigatum, Er., and Nos. 4, 9, 11, 13 and large larvae, 15, and 18 also present.

#### 14TH AUGUST 1920.

24. Ceraphron fuliginosi, Box. and Nos. 2, 3, 4, 7, 12, 13 and larvae and pupae, and 19 also present.

## 28th August 1920.

25. Eulophus amempsimus, Walker, a specimen emerged from a pupa of Quedius brevis, which had pupated at home from a larva taken on 20th June.

# 27TH SEPTEMBER 1920.

- 26. Quedius mesomelinus, Marsh.
- 27. Othius myrmecophilus, Kies.
- 28. Spalangia erythromera, Först., subsequently proved to be parasitic on No. 3, *Phyllomyza lasiae*, Collin, and No. 29, *Melichia ludens*, Wahl.; larvae and pupae of which were taken home.
- 30. Aspilota nervosa, Hal.

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- 31. Lagynodes ater, var. aterior, Box.
- 32. Tetrilus diversus, Camb., young and egg sacks on the carton of the nest, and Nos. 2, 4, 12, 13, 16, and 22 also present.

## 22ND SEPTEMBER 1921.

Ants very active, the carton could be plainly seen in the hole in the tree.

33. Stomaphis quercus, L., several on an oak tree next to the birch tree, attended by many of the ants. Nos. 6, 13, 29, and its rather fat and broad larvae, and pupae, were fairly numerous in damp earth beneath the carton, and on the carton itself.

### 7TH OCTOBER 1921.

34. Oxypoda haemorhoa, Sahlb.

35. Tetrilus arietinus, Camb., ♂, ♀♀ (♀=No. 32), and Nos. 2, 3 larvae, and pupae, 4, 6, 11, 12, 22, 26, 28 in some numbers, 29 larvae and pupae. Spalangia erythromera, Först., 30.x.21, emerged from the Dipterous larvae and pupae taken home on 7.x.21.

#### 8th June 1922.

36. Dendrophilus pygmaeus, L., and Nos. 2, 3, 4, 7, 9, 10, 11, and 13 also present.

### 22nd September 1922.

37. Schizoneura corni, F., alate φ, and Nos. 2, 3, 4, 6 in some numbers,
8, 11 abundant, 13, 22, 23, 29 larvae and pupae, and 36 one.

## 26тн Мау 1923.

38. Heterothops nigra, Kr., and Nos. 4 in plenty and larvae, 9, 11, 13 and larvae, 20, and 22.

# 3rd July 1924.

Colony in good condition, abundant and active,  $\sigma \sigma$  and w.  $\varphi \varphi$  present. A lot of frass in the hole.

39. Thiasophila inquilina, Märk.

40. Bracon anthracinus, Nees.

41. Philophorus perplexus, D. & G., very young running with the ants and Nos. 4, 6, 10, 11 abundant, 18, 22, 28.

## 29TH JUNE 1925.

Colony in splendid condition, very many large  $\not{\bigtriangledown} \not{\lor} \not{\lor}$  about, very active, others attending *Stomaphis quercus*, L., on oak tree nearby.  $\sigma \sigma$  and  $\varphi \varphi$  in entrance to the nest.

- 42. Myrmedonia humeralis, Gr., and Nos. 6, 7, 11 abundant, 18, 22, 28, and 39 present.
- 43. Neophyllomyza fagicola, Hendel.

### 1st May 1927.

44. Antennophorus grandis, Berl., on some of the  $\not{a} \not{a}$ , and Nos. 4, 6, 9, 12, 21, 22 abundant, and 29 larvae present.

The last visit to this nest for over 10 years was on 21st September 1927, when the late Miss Kirk and I went there together. The colony was in good condition and we noted Nos. 4, 11, 12 and larvae and pupae of 3 and 29.

# STH APRIL 1938.

Mr H. Willoughby Ellis drove Miss D. Kirk and me down to this locality and we found the colony in good condition; many  $\notin \notin$  were out along the bank on both sides of the birch tree.

No. 45. Dendrophilus punctatus, Hbst. Very few myrmecopiles were to be seen; the nest was not packed, and little could be done. Miss Kirk and Mr Ellis took two specimens of the above from the refuse we had collected and sieved.

In connection with a few of these insects one may mention : --

No. 13. Quedius brevis, Er. Its larvae and pupae are frequently present; larvae taken home, and placed with some refuse from the nest in plaster cells have pupated and emerged from the pupae in 17 days. Pupae taken home, and isolated in plaster cells, have produced on several occasions the Chalcid, No. 25, Eulophus amempsimus, Walker.

No. 28. Spalangia erythromera, Först. This Chalcid, which was new to Britain when I first took it in a *fuliginosus* nest in 1906, I have reared from the pupae of No. 3, *Phyllomyza lasiae*, Collin, and No. 29, *Milichia ludens*, Wahl., from this colony. From No. 29, since the publication of "The Guests." The parasite is only to be found in the nests of *fuliginosus* (as are its hosts), and it is partly on friendly terms with the ants, occasionally tapping antennae with them.

No. 36. Dendrophilus pygmaeus, L. This species is the regular guest of Formica rufa, L., indeed, the only records I know of it with fuliginosus are the two occasions I took it in this colony.

No. 43. Neophyllomyza fugicola, Hendel. This little fly was first described from Austria in 1927. I took it first, new to Britain, in this colony in 1925. It only occurs with fuliginosus, with which ant I have also taken it at Wimbledon Common and Windsor Forest. It is first recorded for Britain in "The Guests."

No. 45. Dendrophilus punctatus, Hbst., was first taken in this nest on our last visit. It is chiefly found with *fuliginosus*, but also in other ants' nests and various other places.

### EARLY STAGES OF INDIAN LEPIDOPTERA.

By D. G. SEVASTOPULO, F.R.E.S.

(Continued from Vol. xlix, p. 125.)

Buzura suppressaria, Guen. (Noctuidae).

Head lobed, mottled brown. Ground colour mottled brown. 1st somite lobed. 2nd to 11th somites with a pair of pale dorsal spots. 11th somite with a transverse black stripe. Pale lateral tubercles on 7th and 8th somites. Spiracles red. Anal plate and claspers reddish.

Another form has the ground colour dark green with a darker dorsal stripe and dark suffusion between the somites. A lateral patch on the 3rd somite, a transverse stripe on the 11th and the anal claspers black.

Pupa very dark purple, almost black. Abdomen ending in a long anal spike. Subterranean.

Foodplant.--Cassia sp. and Lagerstroemia indica (Crape Myrtle).

Described from a full fed larva found in Calcutta 9.xi.31, buried itself 11.xi.31, and a female emerged 11.i.32.

Hampson describes the green form only and says that the larva of the female is paler than that of the male. I have not observed this.